



On-Farm Comparison Results

- GRIMES

Year: 1998-2000

Title: Non-Bt Corn vs. Bt Corn

Crop: Corn

NSFGPP Operator: David Grimes, Lancaster County

Private Industry Cooperator: Earle Raun

Objective: To determine and document the effect on profitability of using non-Bt corn vs. Bt corn

Treatments: Non-Bt Corn vs. Non-Bt corn with insecticide treatment vs. Bt Corn.



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Results:

	<u>Variable</u>	<u>Non-Bt</u>	<u>Non-Bt+Insect</u>	<u>Bt</u>	<u>Prob >F</u>
		<u>Pion. 3489</u>	<u>Pion. 3489</u>	<u>Pion 34R06</u>	
1998	Yield, bu/ac at 15.5%	169	----	173	0.32 ns
	Moisture %	17.8	----	18.6	0.02**
	Test Wt., lbs/bu	55.7	----	54.4	0.014**
	Population	20,300	----	20,700	0.18 ns
	Cost	\$27.99	----	\$36.69	
		<u>Pion. 3489</u>	<u>Pion. 3489</u>	<u>Pion 34R07</u>	
1999	Yield, bu/ac at 15.5%	154	----	160	0.64 ns
	Moisture %	13.9	----	15.0	0.019**
	Test Wt., lbs/bu	58.9	----	59.1	0.35 ns
	Population	21,100	----	22,300	0.15 ns
	Cost	\$18.12	----	\$34.41	

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Results:

	<u>Variable</u>	<u>Non-Bt</u>	<u>Non-Bt+Insect</u>	<u>Bt</u>	<u>Prob >F</u>
		<u>Pion. 33G26</u>	<u>Pion. 33G26</u>	<u>Pion 33G27</u>	
2000	Yield, bu/ac at 15.5%	134	----	134	0.97 ns
	Moisture %	13.9	----	15.2	0.004***
	Test Wt., lbs/bu	60.2	----	60.6	0.011**
	Population	22,400	----	23,100	0.28 ns
	Cost	\$31.83	----	\$38.29	

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Summary: In 1998, insect population was too low to warrant insecticide application. There was no significant difference in yield between the two hybrids. The grain of the Bt corn was wetter at harvest and had a lower test weight. Insect population was too low in 1999 to warrant insecticide application. The grain of the Bt corn was again wetter at harvest. Insect population was too low again in 2000 to warrant insecticide application. The grain of the Bt corn was again wetter at harvest and had a slightly higher test weight. Grain yields for the two hybrids were the same all three years.